

# REFLEX PROTO-AUSTRONESIA TO AMBELAU IN WEST CENTRAL MALUKU GROUP:

THE EFFORT TO TEST  
THE HIPOTESIS COLLINS (1981)

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**Abstract**— Historically, the language of Ambelau is classified into the West Central Maluku Group with Buru, Sula and Taliabo. This study intends to explain the Proto-Austronesian (PAN) reflex into Ambelau language as a first step in testing Collins's (1981) hypothesis. To achieve this goal, the PAN etymon was used in the Austronesian Comparative Dictionary compiled by Blust and Trussel (2015) and the evidences of 200 basic vocabularies and 800 cultural vocabularies collected directly in the field. Furthermore, the data were analyzed using a top-down approach of intralingual pad method with the relation technique. Of 32 phonemes (consonants and vowels) reconstructed by Blust (2013), except \*g and \*aw, other PAN phonemes are found reflexively in Ambelau either through retention or innovation. PAN consonants with retention and innovation are \*p, \*t, \*k, \*b, \*m, \*n, \*ɲ, \*ŋ, \*s, \*h, \*l, \*r, and \*y, whereas vowels \*i, \*u, and \*a. The only innovated PAN phonemes (not retention) are \*C, \*q, \*d, \*z, \*j, \*c, \*N, \*S, \*h, \*R, \*y, \*ay, \*iw, \*uy, and \*ə. PAN reflexes either through retention or innovation, each of which is regular and irregular. It should be noted that the PAN phoneme reflex into Ambelau language is split and merged.

**Keywords**— *phonem reflex; Proto-Austronesia; shared innovation; top-down approach*

## I. INTRODUCTION

Ambelau (Ab) is used in Ambelau Island (in the southeast of Buru Island) and in Wae Tawa Village on the southeast coast of the mainland of Buru Island, in Maluku Province. The 1989 Summer Institute of Linguistics (SIL) survey results, as cited in Lewis et al (2015), are spoken by more than 5,700 speakers. Historically, the language by Esser (1938) and Salzner (1960) is classified into the Sula-Bacan Group with languages Buru (Br), Sula (Sl), Taliabo (Tl), and Bacan (Bc). However, Collins (1983) eliminated Bacan from the group for

including one of the Malay variants, and named the group with the Central West Maluku Group (Collins, 1980 and 1981). According to Collins, the languages are different groups with other Central Maluku (East) languages such as Asilulu, Seram, Naulu, Selaru, Banda, Ambon, Serua, and so on.

Collins's early studies (1981) show that the Ambelau language is closely related to the languages of Buru, Sula, and Taliabo. However, as Sumarlam et al (2017) pointed out, two evidences on Ambelau's relationship with Buru-Sula-Taliabo that Collins (1981) proposed are still inadequate. The proof is PAN: \*t in the initial position (#-) and intervocal (# vv #) into /r/ and /c/ in Ambelau while in Buru, Sula, and Taliabo become /f/, as the Ambelau separator with Buru-Sula-Taliabo. The change of PAN \*t into /r/ also occurs in the languages of the Middle East Moluccas Group, namely Murnaten, Hunitetu, and Keitetu. Similarly, PAN: \*k/#- and #v-v# in Ambelau tend to be unclear, whereas in Buru, Sula, and Taliabo languages retain. However, the initial search results, it turns out to be /q/ and /ø/, and occur also in the languages of the Central Maluku Group (East).

In addition, Sumarlam et al (2017a and 2017b) attest to some of Collins' (1981) study differences with his studies primarily on Buru. According to Collins (1981), the languages of Buru (also Sula and Taliabo), PAN \*t in the initial position (#-) and intervocal (#v-v#) change to /f/, while Sumarlam et al (2017b) show that the sound is retention or maintained regularly as /t/ and only innovated to /n/ and /ø/, not /f/. Collins (1981) argues that there is a merger of PAN \*k and \*p at the end position to /t/ in Buru, while the Sumarlam et al (2017b) study shows no innovation of PAN \*p at the end position to /t/, whereas PAN \*k becomes /t/ is irregular.

The above conditions are reasonable, given the Collins (1981) study in addition to the preliminary nature, the data

used are still limited and only use written document data in the list of Doren van (1859), van der Crab (1862), Ludeking (1868) Wallace (1869), Jellesma (1875), van der Meisen (1902), Freiburg Moluccan Expedition (1910-1912), Schut (1915-1919), and Josselin de Jong (1941). Since the Collins (1981) study is preliminary and substantively requires additional evidence, further in-depth and advanced study should be undertaken. As the first step in that direction, an in-depth study of Proto-Austronesian (PAN) reflexes into the languages of the members of the West Maluku Group needs to be done. PAN reflex studies into the Ambelau language as one of the members of the Midwestern Maluku Group were conducted.

To solve the problem, field data was collected on Ambelau speakers in the form of 200 basic vocabulary and 800 cultural vocabulary with interview method. In addition, data were collected using literature methods in the form of an Austronesian Comparative Dictionary compiled by Blust and Trussel (2015). The collected data is then analyzed using a top-down approach by looking at the realization of PAN into the Ambelau language. Subsequently, an intralingual pad method is employed by the relation technique.

## II. PROTO-AUSTRONESIAN REFLEXES TO AMBELAU LANGUAGE

In accordance with the objectives to be achieved, in this section will be exposed to the PAN sound reflex into the Ambelau language. This description is important, not only to see the sound-disordering irrelevance of ancient languages to modern languages, but the descriptions can be used for language groupings at the lower levels. Since this study intends to describe the PAN reflex into Ambelau language, a synchronic description of the PAN and Ambelau phonem systems is required so that what sounds will be reflected and what does not. Therefore, before the PAN reflex reflex into the Ambelau language will be described the number and type of phonemes contained in both.

As quoted in Blust (2013), PAN phonem consists of 32 phonemes consisting of 24 consonants (/p, t, C, c, k, q, b, d, z, j, g, m, n, ɲ, s, S, h, l, r, R, y, dan w/), four vowels (/ i, u, ə, and a /), and four diphthongs (-aw, -ay, -uy, and -iy). It should be noted that PAN \*C is reconstructed from Proto-Melayu Polinesia (PMP) \*t and \*nt, while PAN \*c of PMP \*c and \*nc. PAN \*S reconstructed from PMP \*h and \*ø, whereas PAN \*s of PMP \*s and \*ns. As for PAN \*r reconstructed from PMP \*r, while PAN \*R from \*R and \*l. Except the phoneme /p/, /b/, /g/, and /j/, other sounds of each reconstruction of the phoneme. Thus, PAN \*p of PMP \*p and \*mp; PAN \*b of PMP \*b and \*mb; PAN \*g of \*g and \*ɲg; and PAN \*j from \*j and \*ɲj. As for the result of identification of Sumarlam et al (2017), Ambelau language contained phoneme /p, t, c, k, q, b, d, j, g, m, n, ɲ, s, h, l, r, y, dan w/ as consonants (19 consonants) and eight vowels (/ i, u, e, ə, ε, o, ɔ, and a /) and two diphthongs.

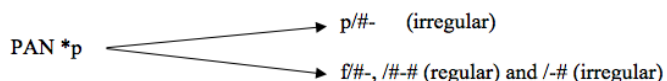
### A. Reflexes PAN \*p

The analysis results, PAN \* p at the initial and middle position in Ambelau is reflected regularly into /f/, except in the irregular end position. In addition, the initial PAN \*p position is preserved, and if the data is expanded it can occur regularly.

Gloss	PAN	Ambelau	Pattern
pare	*pariaq	bapriyane	*p > p/#-
white	*puNi	epurini	
when	*pi (c, j) a	pirufila	*p > f/#-
bat	*paniki	ɛfni	
stringray	*paRi	fahi	
turtle	*pənuq	finu, dan sebagainya	
thin	*tipis	namlifi	*p > f/#-
four	*Səpat	fa	
check	*pipih	fafai	
what	*apa	safa, dan sebagainya	
blow	*tiup	nufe	*p > f/#-

Fig. 1. Reflexes of PAN\*p

The shape of *ɛfni* 'bat' allegedly changes from \*paniki (*syncope*) > \*panii (*shortening*) > \*pani (*attenuation*) > \*fani (*partial assimilation*) > \*fəni (*metathesis*) > *ɛfni* or \*paniki (*attenuation*) > \*faniki (*syncope*) > \*fanii (*shortening*) > \*fani (*partial assimilation*) > \*fəni (*metathesis*) > *ɛfni*. The above data also shows the PAN \*p split into /p/ and /f/.



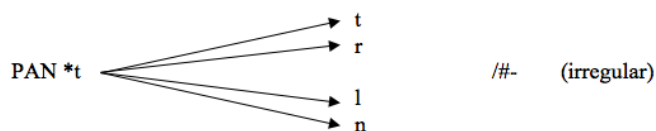
### B. Reflexes PAN \*t

Results of data analysis, PAN \* t experience retention and innovation. Retention occurs only in the initial and middle positions, each of which is irregular. PAN \*t changes to /r/ and /l/ in the initial position, whereas the /n/ at last positions are each irregular. Changes to /r/ are possible to be regular if data expansions are done, as well as retention \*t in the middle position.

Gloss	PAN	Ambelau	Pattern
planting	*tanəm	tanəna	*t > t/#-
thin	*tipis	namlifi	*t > l/#-
blow	*tiup	nufe	*t > n/#-
three	*təlu	relo	*t > r/#-
east	*timuR	rimu	
lice	*kutu	uru	*t > t/#-
necklace	*rantay	rante	

Fig. 2. Reflexes of PAN\*t

Based on the above description, the PAN \*t reflex into Ambelau language in the initial position has split (cracking).



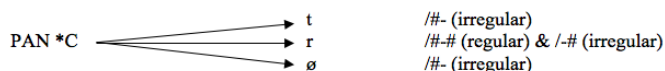
### C. Reflexes PAN \*C

PAN \*C changes to /t/, /r/, and /ø/ in Ambelau. The change to /r/ occurs in the middle and end positions each of which is orderly, whereas being /t/ takes place in the initial position and if expanded it is possible to be regular. As for being /ø/ occurs in the initial position and is irregular.

Gloss	PAN	Ambelau	Pattern
ear	*Calinga	ehrinani	*C > ø/#-
cry	*CangiS	ntate	*C > t/#-
year	*CawiN	taune	
egg	*qitəluR	napreho	*C > r/#-#
die	*maCay	əmmarah	
octopus	*kuRiCa	rira	
vein	*huRaC	uhare	*C > r/#-
sky	*langiC	lanire	

Fig. 3. Reflexes of PAN\*C

PAN \*C reflexes into Ambelau language in the initial position are split, ie /t/ and /ø/, and are irregular.



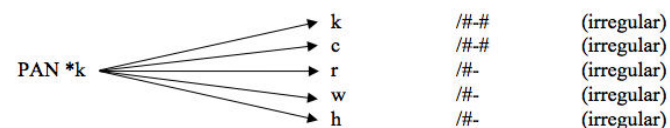
### D. Reflexes PAN \*k

In addition to retention in the middle position, PAN \* k is innovated, ie /h/, /ø/, and /w/ in the initial position and /c/ in the middle position. Both reflections are in the form of retention and innovation, each of which is irregular. Only, if the expanded data maintenance of PAN \* k in the initial position is possible to be regular.

Gloss	PAN	Ambelau	Pattern
you	*kaSu	hawe	*k > h/#-
wood	*kaSiw	awu	*k > ø/#-
dig	*kalih	wali	*k > w/#-
fish	*Sikan	icane	*k > c/#-#
bat	*paniki	efni	*k > k/#-#
tail	*ikuR	ikoi	

Fig. 4. Reflexes of PAN\*k

The above data also shows that PAN \* k both in the initial and middle positions equally split into /k/, /c/, /r/, /w/, and /h/.



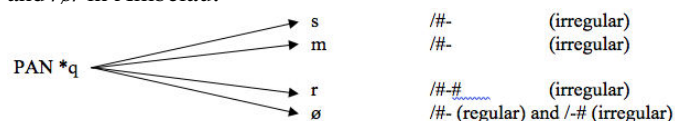
### E. Reflexes PAN \*q

PAN phoneme \*q, as far as the data found does not occur maintenance in Ambelau language. The change of PAN \*q into /ø/ at the beginning and end positions each is regular, whereas being /s/ and /m/ in the starting position and /ø/ in the respective intermediate positions are irregular.

Gloss	PAN	Ambelau	Pattern
salt	*qasiRa	sasie	*q > s/#-
salty	*qasin	əmasi	*q > m/#-
shrimp	*qudang	ulae	*q > zero/#-
egg	*qiCəluR	napreho	
shark	*qiSu	u	
rain	*quzaN	ula, etc.	
new	*baqəRuh	bihu	*q > ø/#-#
monkey	*kəriq	kesi	*q > ø/#-
blood	*daRaQ	haha	
pare	*pariaq	bapriyane	
turtle	*pepuq	finu	
blood	*daRaQ	haha, etc.	

Fig. 5. Reflexes of PAN\*q

PAN \*q reflexes into Ambelau language split into /s/, /m/, /r/, and /ø/ in Ambelau.



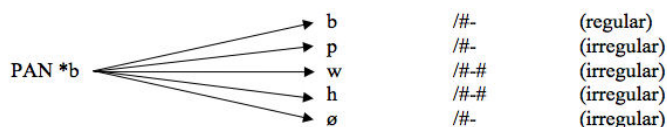
### F. Reflexes PAN \*b

The sound of PAN \*b is only retention regularly in the initial position in Ambelau, while in other positions it is innovated to be /ø/, /h/, /w/, and /p/. Changes to /ø/ and /p/ occur in the initial position, and become /w/ and /h/ in the middle position, each irregular. Reflexes to /ø/ and /p/ are possible to occur on a regular basis if data extensions are made.

Gloss	PAN	Ambelau	Pattern
crocodile	*buqaya	buwa	*b > b/#-
new	*baqəRuh	bihu	
pig	*babuy	bawu	
mine	*bubu	buhu	
stone	*batu	baru, etc.	
split	*belaq	polana	*b > p/#-
moon	*bulan	potana	
fast, quick	*bəkas	ngkasi	*b > ø/#-
mountain	*buləd	uhare	
pig	*babuy	bawu	*b > w/#-#
mine	*bubu	buhu	*b > h/#-#

Fig. 6. Reflexes of PAN\*b

The data above also shows that PAN \*b has split into /b/, /p/, /w/, /h/, and /ø/.



regularly, while in the initial position is irregular. Changes to /n/ and /ø/ are irregular.

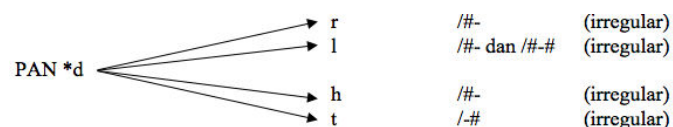
#### G. Reflexes PAN \*d

PAN \*d is not retention in Ambelau language, but changes to /r/, /l/, and /h/ at initial position, becomes /l/ in middle position, and becomes /t/ in final position. The changes are irregular in nature.

Gloss	PAN	Ambelau	Pattern
flat	*dataR	rata	*d > r/#-
two	*duSa	luwa	*d > l/#-
blood	*daRaQ	haha	*d > h/#-
shrimp	*qudarj	ulæ	*d > l/#-
sea	*lahud	laute	*d > t/#-

Fig. 7. Reflexes of PAN\*d

The above data also shows, in the initial position PAN \*d split into /r/, /l/, /h/, and /t/.



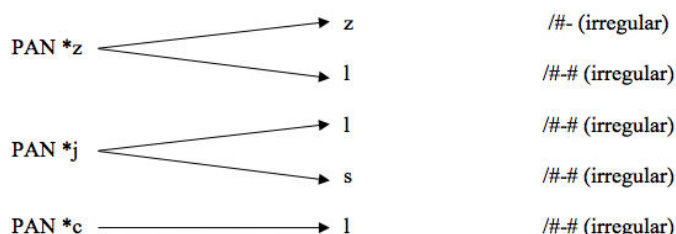
#### H. Reflexes PAN \*z, \*j, and \*c

PAN \*z is reflected to /l/ in the initial and middle position, whereas PAN \*j becomes /l/ and /s/ in the middle position each of which is irregular. As for PAN \*c being /l/ in the middle position occurs irregularly.

Gloss	PAN	Ambelau	Pattern
walk	*zalan	lalea	*z > l/#-
rain	*quzaN	ula	*z > l/#-
when	*pija	pirufila	*j > l/#-
navel	*puja	pusei	*j > s/#-
when	*pica	pirufila	*c > l/#-

Fig. 8. Reflexes of PAN\*z, \*j, and \*c

The above data also shows that PAN \*z splits into /z/ and /l/, while PAN \*j becomes /l/ and /s/.



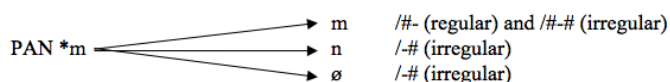
#### I. Reflexes PAN \*m, \*n, \*j, \*j, dan \*N

PAN \*m is still maintained in Ambelau language in the initial and middle position, while in the final position changes to /n/ and /ø/. Maintenance \*m in the middle position occurs

Gloss	PAN	Ambelau	Pattern
die	*maCay	əmmarah	*m > m/#-
moss	*lumut	lumura	*m > m/#-
hand	*kamay	limani	
father	*ama	amao	
planting	*tanəm	tanəna	*m > n/#-
drink	*inum	mijo	*m > ø/#-

Fig. 9. Reflexes of PAN \*m

The above data also shows that the change of PAN \*m in the final position has split to /m/, /n/, and /ø/.

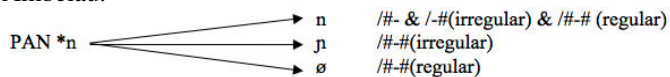


PAN \*n is still maintained in Ambelau language in the initial, middle and end positions, but only in a regular center position. Experiencing innovation takes place in the middle position (become /j/) and end (to /ø/).

Gloss	PAN	Ambelau	Pattern
coconut	*niuR	niwe	*n > n/#-
drink	*inum	mijo	*n > j/#-
bat	*paniki	efni	*n > n/#-
planting	*tanəm	tanəna	
six	*ənəm	nə	
nenek moyang	*usini	usuni, dan sebagainya	
fish	*Sikan	icane	*n > n/#-
salty	*qasin	əmasi	*n > ø/#-
walk	*zalan	lalea	
how	*ijan	pirufila	

Fig. 9. Reflexes of PAN \*n

The above data shows PAN \*n split into /n/, /j/, and /ø/ in Ambelau.



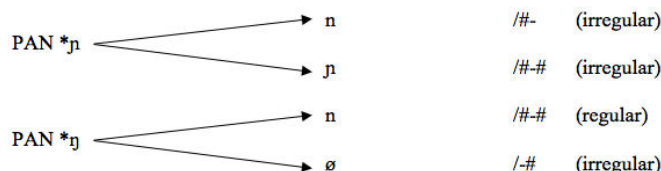
PAN \*j is still maintained in Ambelau language in the middle position, while in the initial position of innovation. PAN \*j in the middle position also innovated to /n/. Both retention and innovation, each occurring irregularly. As for PAN \*j nothing is preserved in Ambelau, but has been innovated to /n/ (in the middle position) and /ø/ (in final position). Changes to /n/ occur regularly, while being /ø/ is irregular.



Gloss	PAN	Ambelau	Pattern
coconut	*niuR	niwe	*ɲ > n/#-
promise	*Suaɲji	nijaɲji	*ɲ > ɲ/#-#
wind	*haɲin	ani	*ɲ > n/#-#
sky	*laɲiC	lanire	
hear	*Caliɲa	ehrinani	
turtel	*pəɲuq	finu, dan sebagainya	
shrimp	*qudaɲ	ulae	*ɲ > ø/#-

Fig. 10. Reflexes of PAN \*ɲ

Reflexes PAN \*ɲ to Ambelau language split in different positions, as well as PAN \*ɲ.

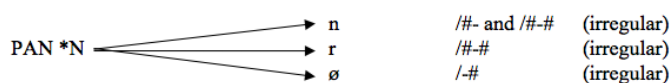


PAN \*N is reflected as /n/, /r/, and /ø/ in Ambelau. PAN \*N becomes /n/ occurs in the middle and end positions each of which is irregular. In the middle position is possible to occur regularly if the data is expanded. As for /r/ occurs in the middle position, while the /ø/ in the final position.

Gloss	PAN	Ambelau	Pattern
year	*CawiN	taune	*N > n/#-
child	*aNak	anay	*N > n/#-#
termite	*aNay	hana	
white	*puNi	epurini	*N > r/#-#
rain	*quzaN	ula	*N > ø/#-

Fig. 10. Reflexes of PAN \*N

The above data shows that PAN \*N has split, ie /n/, /r/, and /ø/ in Ambelau.



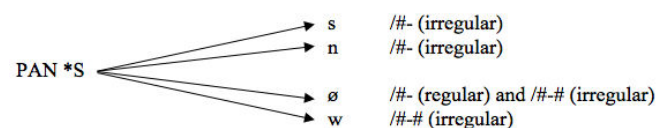
#### J. Reflexes PAN \*S, \*s, dan \*h

Phonem \*S is reflected to /s/, /n/, and /ø/ in the initial position, and becomes /ø/ and /w/ in the middle position. Changes to /ø/ are regular in the initial position, while others are irregular. The change to /ø/ and /w/ in the middle position is possible to occur regularly if the data is expanded.

Gloss	PAN	Ambelau	Pattern
meat	*Sesi	isini	*S > s/#-
promise	*Suaɲji	nijaɲji	*S > n/#-
fire	*Sapuy	afuy	*S > ø/#-
four	*Səpat	fa	
fish	*Sikan	icane	
you	*kaSu	hawc	*S > ø/#-#
water	*waSiR	wæc	
wood	*kaSiw	awu	*S > w/#-#
two	*duSa	luwa	

Fig. 11. Reflexes of PAN \*S

The data above also shows, PAN \*S split into /s/, /n/, /w/, and /ø/ in Ambelau.



The PAN \*s reflexes become /s/ in the initial and middle positions, while in the final position become /ø/. The change to /s/ in the middle position is orderly while others occur irregularly.

Gloss	PAN	Ambelau	Pattern
nine	*siwa	siwa	*s > s/#-
salty	*qasin	əmasi	*s > s/#-#
salt	*qasiRa	sasie	
dog	*asu	asu	
ancestor	*usini	usuni, etc.	
thin	*tipis	namlifi	*s > ø/#-
cry	*Caɲis	ntate	

Fig. 12. Reflexes of PAN \*s

The above data shows that PAN \*s has split to /s/ and /ø/ in Ambelau.

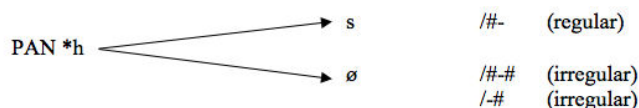


PAN \*h is reflected to /h/ and /ø/ in Ambelau. To be /h/ takes place in the starting position and is regular, while /ø/ occurs in the middle and end position, each of which is irregular. In the final position, it is possible to be regular if the data is expanded.

Gloss	PAN	Ambelau	Pattern
vein	*huRaC	uhare	*h > h/#-
wind	*haɲin	ani	
fire	*hapuy	afu	
sea	*lahud	laute	*h > ø/#-#
new	*baqəRuh	bihu	*h > ø/#-
dig	*kalih	wali	

Fig. 13. Reflexes of PAN \*h

The data above shows that PAN \*h has split to /h/ and /ø/ in Ambelau.



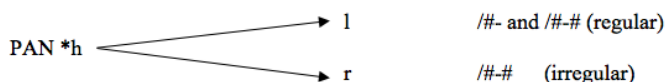
#### K. Reflexes PAN \*l, \*R, dan \*r

PAN \*l is maintained in Ambelau language in the initial and middle position, each is regular, but there is data showing PAN \*l changes to /r/ in the middle position and is irregular.

Gloss	PAN	Ambelau	Pattern
sea	*lahud	laute	*l > l/#-
sky	*lanjC	lanire	
five	*lima	lima, etc.	
ear	*Caliŋa	ehrinani	*l > r/#-#
three	*təlu	relo	*l > l/#-#
dig	*kalih	wali	
worm	*kulay	ulea	
walk	*zalan	lalea, etc.	

Fig. 13. Reflexes of PAN \*l

The above data also shows that PAN \*l split into /l/ and /r/ in Ambelau.

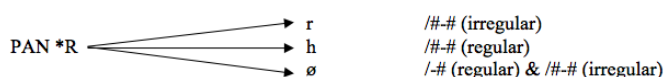


From the data found that PAN \*R is reflected to /r/, /h/, and /ø/ in Ambelau. The changes each occur in the middle position. In addition, it becomes /ø/ occurs in the final position. Changes to /h/ occur regularly, whereas /ø/ the end position occurs regularly.

Gloss	PAN	Ambelau	Pattern
salt	*qasiRa	sasie	*R > ø/#-#
octopus	*kuRiCa	rira	*R > r/#-#
stringray	*paRi	fahi	*R > h/#-#
blood	*daRaŋ	haha	
new	*baŋəRuh	bihi	
vein	*huRaC	uhare	
water	*waSiR	wæ	*R > ø/#-
tail	*ikuR	ikoi	
coconut	*niuR	niwe	
east	*timuR	rimu	

Fig. 14. Reflexes of PAN \*R

The data above also illustrates that PAN \*R split into /r/, /h/, and /ø/ in Ambelau.

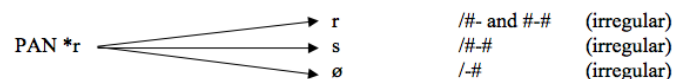


The PAN \*r is maintained to /r/ in the initial and middle position. Also, in the middle position the innovation becomes /s/ and at the end position becomes /ø/. Both experienced retention and reflex innovation are irregular.

Gloss	PAN	Ambelau	Pattern
necklace	*rantay	rante	*r > r/#-
pare, paria	*pariaŋ	bapriyane	*r > r/#-#
monkey	*kəriŋ	kesi	*r > s/#-#
egg	*qiCəluR	napreho	*r > ø/#-

Fig. 14. Reflexes of PAN \*r

The data above also shows that, PAN \*r in Ambelau language has split into /r/, /s/, and /ø/.



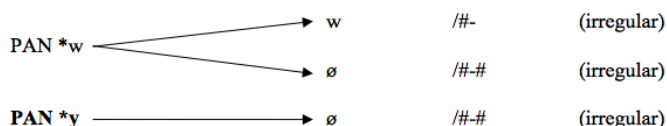
#### L. Reflexes PAN \*y dan \*w

PAN \*y becomes /w/ and /ø/, respectively in the initial and middle position and are irregular. The PAN \*y is simply reflected to /ø/ in the middle position in Ambelau.

Gloss	PAN	Ambelau	Pattern
water	*waSiR	wæ	*w > w/#-
eight	*walu	walo	
year	*CawiN	taunc	*w > ø/#-#
large	*lawas)	lucesc	
crocodile	*buqaya	buwa	*y > ø/#-#

Fig. 15. Reflexes of PAN \*y

The data above also shows that PAN \*w has become /w/ and /ø/, while PAN \*y, is not.



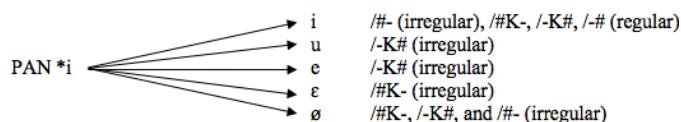
#### M. Reflexes PAN \*i

PAN \*i in Ambelau language is still maintained in the initial position, penultima silabe, ultima silabe, and end. Only in the initial position, it occurs irregularly (but is possible to occur regularly if the data is expanded), while in other positions are regular. In addition, PAN \*i has innovated to be /e/ (on the penultimate silabe), /ø/ (on penultima silabe, ultima, and end syllabe), /e/ (in the ultima silabe), and /u/ (in the ultima silabe). Reflection PAN \*i into the other sound is each irregular.

Gloss	PAN	Ambelau	Pattern
drink	*inum	minyoy	*i > i/-#
tail	*ikuR	ikoi	
water	*waSiR	wæ	*i > e/#K-
shark	*qiSu	u	*i > o/#K-
how (many)	*pica	pirufila	*i > i/#K-
pare, paria	*pariaq	bapriyane	
bat	*paniki	efni	
thin	*tipis	namlifi, etc.	
blow	*tiup	nufe	*i > o/-K#
cry	*Caŋis	ntate	*i > e/-K#
year	*CawiN	taune	*i > u/-K#
ancestor	*usini	usuni	
thin	*tipis	namlifi	*i > i/-K#
dig	*kalih	wali	
water	*waSiR	wæ	
cheek	*pipih	fafai	
salty	*qasin	əmasi, etc.	
bat	*paniki	efni	*i > o/-#
stingray	*paRi	fahi	*i > i/-#:
ancestor	*usini	usuni	
promise	*Suanji	nijanji	
white	*puNi	epurini, etc.	

Fig. 16. Reflexes of PAN \*i

The data above also shows PAN \*i split into /i/, /u/, /e/, /ɛ/, and /ø/ in Ambelau.



#### N. Reflexes PAN \*u

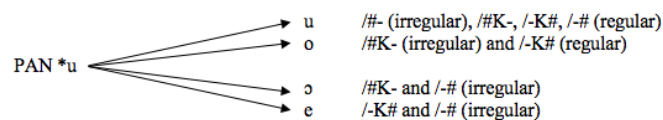
PAN \*u is retention in Ambelau language at the initial position, penultima silabe, ultima silabe, and final position. Retention occurs regularly, except in the starting position. PAN \*u has also been innovated to /o/ (on the penultimate and ultima silabas), /ɔ/ (on the penultimate and final syllabus), and /e/ (in the ultima and final syllables).

Gloss	PAN	Ambelau	Pattern
ancestor	*usini	usuni	*u > u/-#
great-grandfather	*bubu	ɔponi	*u > o/#K-
great-grandfather	*bubu	ɔponi	*u > ɔ/#K-
mine	*bubu	buhu	*u > u/#K-:
house	*Rumah	luma	
milk	*susu	susu	
two	*duSa	luwa, etc.	
coconut	*niuR	niwe	*u > e/-K#
turtle	*pənuq	finu	*u > u/-K#
sea	*lahud	laute	
new	*baqəRuh	bihi	
egg	*qitəluR	napreho	*u > o/-K#
sea	*lahut	laute	
tail	*ikuR	ikoi, etc.	

egg	*təlu	rəlo	*u > ɔ/-#
you	*kaSu	hawə	*u > e/-#
mine	*bubu	buhu	*u > u/-#:
stone	*batu	batu	
I	*aku	aune	
milk	*susu	susu	
dog	*asu	asu, etc.	

Fig. 17. Reflexes of PAN \*u

The above data shows PAN \*u split into /u/, /o/, /ɔ/, and /e/ in Ambelau.



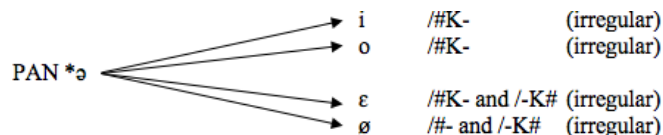
#### O. Reflexes PAN \*ə

PAN \*ə is reflected to /ø/ (in initial position and penultima syllabe), /i/ (on penultimate silabe), /o/ (on penultimate silabe), and /ɛ/ (on the penultimate silabe). The change to /ø/ both in the initial position and the penultimate syllabe is irregular, becomes /i/ is orderly, becomes /o/ irregular (it is possible to regularly if the data is expanded), and becomes /ɛ/ irregular.

Gloss	PAN	Ambelau	Pattern
six	*ənəm	nɛ	*ə > o/-#
monkey	*kəriq	kesi	*ə > i/#K-
turtle	*pənuq	finu	
meat	*Səsi	isini, etc.	
split	*bəlaq	polana	*ə > o/#K-
moon	*bulaN	potana	
egg	*qiCəluR	napreho	*ə > e/#K-
three	*təlu	rəlo	
four	*Səpat	fa	*ə > o/#K-
new	*baqəRuh	bihi	
planting	*tanəm	tanəna	*ə > e/-K#
six	*ənəm	nɛ	

Fig. 16. Reflexes of PAN \*ə

The above data also shows that PAN \*ə has split into /i/, /o/, /ɛ/, and /ø/ in Ambelau.



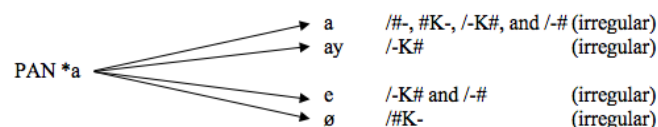
#### P. Reflexes PAN \*a

PAN \*a is still retention in Ambelau language in the initial position, penultima silabe, ultima silabe, and end position, each of which is regular. The reflexes into /e/, /ay/, and /ø/ are irregular in nature. The change to /e/ occurs in the penultimate silhouette and the final position, becomes /ay/ occurs in the ultima position, whereas /ø/ occurs in the penultimate silabe.

Gloss	PAN	Ambelau	Pattern
dog	*asu	asu	*a > a/-#
I	*aku	aunc	
child	*aNak	anay, etc.	
bat	*paniki	efni	*a > ø/#K-
pare, paria	*pariaq	bapriyane	
stringray	*paRi	fahi	*a > a/#K-
planting	*tanəm	tanena	
sea	*lahut	laute, etc.	
walk	*zalan	lalea	*a > e/-K#
child	*aNak	anay	*a > ay/-K#
four	*Səpat	fa	*a > a/-K#
blood	*daRaq	haha	
promise	*Suanji	nijanji	
keep	*jagah	njagaena	
house	*Rumah	luma, etc.	
navel	*puja	fusei	*a > e/-#
father	*ama	amao	*a > a/-#
when	*pica	pirufila	
five	*lima	lima	
nine	*siwa	siwa	
what	*apa	safa, etc.	

Fig. 17. Reflexes of PAN \*a

The data above also shows PAN \*a split into /a/, /e/, /ay/, and /ø/ in Ambelau.



#### Q. Reflexes PAN \*ay, \*iw, dan \*uy

PAN \*ay is reflected to /a/ and /e/ in the final position and each is irregular, but if the data is expanded it is possible to be regular. PAN \*iw and \*uy each turn into /u/ and are irregular.

Gloss	PAN	Ambelau	Pattern
eye	*maCay	əmmarah	*ay > a/-#
termite	*aNay	hana	
necklace	*rantay	rante	*ay > e/-#
worm	*kulay	ulea	
wood	*kaSiw	awu	*iw > u/-#
pig	*babuy	bawu	*uy > u/-#

Fig. 17. Reflexes of PAN \*ay, \*iw, dan \*uy

The above data shows PAN \*ay split into /a/ and /e/ in Ambelau, while PAN \*iw and \*uy do not split.



When observed, PAN phonemes that have not been found inheritance in Ambelau are \*g and \*aw. This happens because there is no seetimon form that contains both phonemes, either in PAN or in Ambelau.

The association with Collins (1981) level of kinship evidence, between the Ambelau language and Buru, Sula, and Taliabo, suggests three things. First, the evidence of Collins's (1981) clustering mainly related to Ambelau's separation of evidence with Buru-Sula-Taliabo, needs to be reviewed. That PAN \*t becomes /r/ is irregular and only occurs in the initial position. In addition, PAN \*t in Ambelau in that position is changed to /t/, /l/, and /n/ each of which is irregular, so it is not sufficient to be a separator in determining the kinship level of the Central West Maluku languages. Secondly, the evidence of Ambelau's separation with Buru-Sula-Talibo in the form of PAN \*k, was still retention in Ambelau as well as in Buru-Sula-Taliabo. Third, it is necessary to identify the PAN \*t and \*k reflexes in Buru, Sula, and Taliabo so that Collins's (1981) grouping basis is more adequate. Fourth, another evidence should be identified that explains the separation of Ambelau languages with Buru, Sula and Taliabo by doing similar studies in those languages.

### III. CONCLUSION

The above description illustrates that, except \*g and \*aw, PAN phonemes are reflected in Ambelau language, either through retention or innovation. The retention and innovation PAN phonemes are \*p, \*t, \*k, \*b, \*m, \*n, \*ŋ, \*s, \*h, \*l, \*r, and \*y, whereas vowels \*i, \*u, and \*a. The only innovated PAN phonemes (not retention) are \*C, \*q, \*d, \*z, \*j, \*c, \*N, \*S, \*h, \*R, \*y, \*ay, \*iw, \*uy, and \*ə. PAN reflexes either through retention or innovation, each of which is regular and irregular. It is worth mentioning, PAN phoneme reflex into Ambelau language split. This study is only able to identify the level of kinship that separates Ambelau from Buru-Sula-Taliabo. Collins' (1981) separation evidence is not sufficient to determine the kinship rate especially in the early developmental phase of Proto-Maluku Tengah Barat. In order for the Collins (1981) study to be comprehensively verified, a similar study is needed in those three languages.

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